

WHAT IS CLAIMED IS:

1. A method of manufacturing a printed wiring board (81), comprising the steps of:

preparing an insulator substrate (1a) having first and second principal surfaces opposite to each other;

forming a first metal foil (82) on said first principal surface;

temporarily fixing a thermosetting resin film (84) to said second principal surface with said thermosetting resin film brought into contact with said second principal surface;

drilling, with said thermosetting resin film temporarily fixed to said second principal surface, a through hole (86) simultaneously in said first metal foil, said insulator substrate, and said thermosetting resin film so that said through hole extends in a direction substantially perpendicular to said first and said second principal surfaces;

simultaneously heating and vacuum-pressing, with a second metal foil (87) brought into contact with said thermosetting resin film after said drilling step, said first metal foil, said insulator substrate, said thermosetting resin film, and said second metal foil to obtain an intermediate printed wiring board in which a bottom (92) of said through hole is covered with said second metal foil and in which the bottom of said through hole has a corner provided with a corner rounded portion (93) formed by said thermosetting resin film so as to protrude from said corner; and

forming a metal plating layer (95) on said first and said second metal foils of both sides of said intermediate printed wiring board, on an inner wall of said through hole, on said corner rounded portion, and on an exposed surface of said second metal foil exposed through the bottom of said through hole to obtain a final printed wiring board provided with interlayer connection.

2. An interlayer connection printed wiring board (81) obtained by the steps of:

preparing an insulator substrate (1a) having first and second principal surfaces opposite to each other;

forming a first metal foil (82) on said first principal surface;

temporarily fixing a thermosetting resin film (84) to said second principal surface with said thermosetting resin film brought into contact with said second principal surface;

drilling, with said thermosetting resin film temporarily fixed to said second principal surface, a through hole (86) simultaneously in said first metal foil, said insulator substrate, and said thermosetting resin film so that said through hole extends in a direction substantially perpendicular to said first and said second principal surfaces;

simultaneously heating and vacuum-pressing, with a second metal foil (87) brought into contact with said thermosetting resin film after said drilling step, said first metal foil, said insulator substrate, said thermosetting resin film, and said second metal foil to obtain an intermediate printed wiring board in which a bottom (92) of said through hole is covered with said second metal foil and in which the bottom of said through hole has a corner provided with a corner rounded portion formed by said thermosetting resin film so as to protrude from said corner; and

forming a metal plating layer (95) on said first and said second metal foils of both sides of said intermediate printed wiring board, on an inner wall of said through hole, on said corner rounded portion, and on an exposed surface of said second metal foil exposed through the bottom of said through hole.

3. A printed wiring board (81) including:

an insulator substrate (1a) having a first principal surface and a second principal surface opposite to said first principal surface; and

a first metal layer (87) formed on said second principal surface; said insulator substrate having a through hole (86) which is formed therein and extends in a direction substantially perpendicular to said first and said second principal surfaces so that a part of a surface of said first metal layer is exposed as an exposed surface through a bottom (92) of said through hole; said printed wiring board comprising a second metal layer (95) formed on said first principal surface of said insulator substrate, on an inner wall of said through hole, and on said exposed surface of the first metal layer.

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